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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/222,340	12/28/1998	WILLIAM F. TERRELL	82771.P279	3304

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EXAMINER	
VAUGHN JR, WILLIAM C	
ART UNIT	**PAPER NUMBER**
2143	

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/222,340	TERRELL ET AL.	
	Examiner	Art Unit	
	William C. Vaughn, Jr.	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 May 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 16-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 16-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

WCV

DETAILED ACTION

1. This Action is in regards to the Amendment and Response received on 04 May 2004.

Response to Arguments

2. Applicant's arguments with respect to claims 1-14 and 16-26 have been considered but are moot in view of the new ground(s) of rejection.

3. The application has been examined. **Claims 1-14 and 16-26** are pending. The objections and rejections cited are as stated below:

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 1-4, 7-11, 13, 14, 17, 18, 20, 21, 24 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshman et al. (Lakshman), U.S. Patent No. 6,341,130 in view of Barzilai et al. (Barzilai), "Design and Implementation of an RSVP-Based Quality of Service Architecture for an Integrated Services Internet", 1998 and in further view of Engler et al., "DPF:Fast, Flexible Message Demultiplexing using Dynamic Code Generation, Copyright 1996.

6. Regarding **claim 1**, Lakshman discloses the invention substantially as claimed. Lakshman discloses *an apparatus adapted to facilitate communications between a client device and a remote device, comprising a network interface including (i) filters including at least one filter being triggered to denote when a received packet satisfies filter criteria corresponding to an*

admission policy (filter rules) *related to differentiated service levels and associated with the at least one filter* [see Lakshman, Col. 1, lines 53-67, Col. 2, lines 1-34, Col. 3, lines 53-55, Col. 6, lines 15-19, Col. 9, lines 20-29] *and (ii) a classifier, communicatively coupled to the filters, to classify and mark one of the service levels associates with the received data packet in response to satisfying the filter criteria associated with the at least one filter* [see Lakshman, Col. 53-67]; *and a controller* [see Lakshman, Figure, 1, item 245]. However, Lakshman does not explicitly disclose a controller coupled to the network interface, to dynamically create and remove the filters controlling access to the different service levels based, at least in part, on an admission profile of the admission policy.

7. In the same field of endeavor, Barzilai discloses (e.g., a system for traffic policing, traffic shaping and buffer management for QOS support). Barzilai discloses and a controller coupled to the network interface, to dynamically create and remove the filters controlling access to the different service levels based, at least in part, on an admissions profile (Barzilai teaches the QOS manager functions a control plane component primarily responsible for the creation, modification, and removal of reservation filters associated with different flows as well as admission control. Also, Barzilai teaches the improvement of statically compiled packet filter by utilizing a general classifier for real-time packet forwarding and packet filters that provide general and flexible classification of incoming packets to application endpoints and dynamic code generation techniques that are applied to realized very efficient packet filters), [see Barzilai, page 400, 2nd column, 4th paragraph, page 411, 2nd column, 2nd paragraph].

8. Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Barzilai teaches of a system for traffic

policing, traffic shaping and buffer management for QOS support with the teachings of Lakshman, for the purpose of providing a system that supports integrated services on the Internet, network routers as well as end hosts in order to further enhance classification of traffic and to handle data packets from different flows as well as having a system that fully supports TCP/IP stack [see Barzilai, page 397, column 2]. However, the specific of dynamic code generation in regards to dynamic filtering are not explicitly discloses by Lakeshman-Barzilai.

9. In the same field of endeavor, Engler discloses (e.g., dynamic filtering). Engler discloses dynamic filtering [see abstract, sections 1, 2.1 and 3.1].

10. Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Engler's teachings of dynamic code generation for the creation of dynamic filtering with the teachings of Lakshman-Barzalai, for the purpose of providing an improvement on traditional packet filtering, through the use of dynamic code generation [see Engler, abstract]. Barzalai provides motivation to combine by stating the uses of dynamic code generation techniques that are applied provide for very efficient packet filtering [see Barzalia, pg. 411]. By this rationale **claim 1** is rejected.

11. Regarding **claim 2**, Lakshman-Barzilai and Engler further discloses wherein the at least one filter, when triggered, initiate an admission control decision preventing allocation of service level resources which are not yet required or authorized [see Barzilai, page 410, 2nd paragraph]. The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 2. By this rationale **claim 2** is rejected.

12. Regarding **claim 3**, Lakshman-Barzilai and Engler further discloses wherein each filter is triggered by information contained within received the data packet (Barzilai teaches that the

address is used during data transfer to efficiently identify the reservation structure to use for policing and shaping traffic on a particular data socket), [see Barzilai, Page 404, 1st Col., 2nd paragraph]. The same motivation that was utilized in the combination of claims 1 and 2 applies equally as well to claim 3. By this rationale **claim 3** is rejected.

13. Regarding **claim 4**, Lakshman-Barzilai and Engler further discloses *wherein each filter is triggered by one or both of packet source information and packet destination information* [see Lakshman, Col. 2, lines 10-14]. By this rationale **claim 4** is rejected.

14. Regarding **claim 7**, Lakshman-Barzilai and Engler further discloses *wherein the admission profile is available locally within the apparatus* [see Lakshman, Col. 15, line 13]. By this rationale **claim 7** is rejected.

15. Regarding **claim 8**, Lakshman-Barzilai and Engler further discloses wherein the controller establishes an ingress profile in response to detecting an associated trigger event, wherein the ingress profile modifies the received data packet adhering to the filter criteria to denote a particular service level, in accordance with the admissions profile [see Barzilai, page 406, 2nd]. The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 8. By this rationale **claim 8** is rejected.

16. Regarding **claim 9**, Lakshman-Barzilai and Engler further discloses wherein the controller removes ingress profiles when data packets adhering to the filter criteria are no longer received, liberating apparatus resources [see Barzilai, page 406, 2nd column, 4th paragraph]. The same motivation that was utilized in the combination of claims 1 and 8 applies equally as well to claim 9. By this rationale **claim 9** is rejected.

17. Regarding **claim 10**, Lakshman-Barzilai and Engler further discloses *wherein the controller removes ingress profiles after a predetermined period of time, liberating apparatus resources* [Barzilai, page 410, 1st column, 1st paragraph-3rd paragraph]. The same motivation that was utilized in the combination of claims 1 and 8 applies equally as well to claim 10. By this rationale **claim 10** is rejected.

18. Regarding **claim 11**, Lakshman-Barzilai and Engler further discloses *wherein the controller removes at least one of the filters in accordance with a network administration policy* [see Barzilai, page 410, 1st column, paragraph 1, Figure 9]. The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 11. By this rationale **claim 11** is rejected.

19. Regarding **claim 13**, Lakshman-Barzilai and Engler further discloses a method for controlling provisions of differentiated service levels in a data network [see Barzilai, abstract], the method comprising (a) installing a filter on a network edge device to provide a trigger notification upon detecting data packets adhering to filter criteria, [see rejection of **claim 1**, **supra**] (b) determining whether a received data packet satisfies the filter criteria, the filter criteria corresponding to an admission policy related to the differentiated service levels [see rejection of claim 1, supra]; and (c) issuing a command by a bandwidth broker to a controller of the network edge device to dynamically install or remove a filter in response to determining whether the received data packets satisfies the filter criteria [see rejection of claim 1, supra]. The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 13. By this rationale **claim 13** is rejected.

20. Regarding **claim 14**, Lakshman-Barzilai and Engler further discloses (d) marking the received data packets adhering to the filter criteria according to a subscribed service level (Barzilai teaches that the QOS manager tags the data path with a session handle to enable handling of data packets commensurate with their service requirements), [see Barzilai, page 398, 1st column, 1st paragraph]. The same motivation that was utilized in the combination of claims 1 and 13 applies equally as well to claim 14. By this rationale **claim 14** is rejected.

21. Regarding **claim 17**, Lakshman-Barzilai and Engler further discloses (e) identifying and marking the received data packets with routing information in accordance with the subscribed service level [see rejection of claim 14, supra]. The same motivation that was utilized in the combination of claims 1, 13 and 14 applies equally as well to claim 17. By this rationale **claim 17** is rejected.

22. Regarding **claim 18**, Lakshman-Barzilai and Engler further discloses (f) placing the data packets in a proper format for transmission (Barzilai teaches TCP formats packets into a acceptable form for transmission to the network), [see Barzilai, page 407, 2nd column, 2nd paragraph]. The same motivation that was utilized in the combination of claims 1, 13, 14, and 17 applies equally as well to claim 18. By this rationale **claim 18** is rejected.

23. Regarding **claim 20**, Lakshman-Barzilai and Engler further discloses wherein the controller further dynamically controls access to at least one classifier profile in accordance with the admission profile [see Barzilai, page 411, 2nd column, 2nd paragraph]. The same motivation that was utilized in the combination of claims 1 and 13 applies equally as well to claim 20. By this rationale **claim 20** is rejected.

24. Regarding **claim 21**, Lakshman-Barzilai and Engler further discloses an apparatus adapted to facilitate communications between a client device and a remote device [see rejection of claim 1, supra], comprising: filter means for controlling access to different service levels [see rejection of claim 1, supra]; means for classifying and marking one of the service levels associated with the received data packet in response to satisfying filter criteria associates with the filter means [see rejection of claim 1, supra]; and control means for dynamically creating and removing a portion of the filter means based at least in part on an admission profile [see rejection of claim 1, supra]. The same motivation that was utilized in the combination of claim 1 applies equally as well to claim 21. By this rationale **claim 21** is rejected.

25. Regarding **claim 24**, Lakshman-Barzilai and Engler further discloses *wherein the filter means comprises a plurality of filters* [see rejection of claims 1 and 21, supra]. By this rationale **claim 24** is rejected.

26. Regarding **claim 25**, Lakshman-Barzilai and Engler further discloses *wherein the control means removes at least one of the filters in accordance with a network administration policy* [see Barzilai, page 400, 2nd column, 4th paragraph]. The same motivation that was utilized in the combination of claims 1 and 24 applies equally as well to claim 25. By this rationale **claim 25** is rejected.

Claim Rejections - 35 USC § 103

27. **Claims 5, 6, 16, 19, 22, 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshman-Barzilai as applied to claims 1, 13, 14, 21 above, and further in view of Gai et al. (Gai), U.S. Patent No. 6,651,101.

28. Regarding **claim 5**, Lakshman-Barzilai and Engler discloses the invention substantially as claimed. However, Lakshman-Barzilai does not explicitly disclose wherein the admission profile is stored in a communicatively coupled remote device.

29. In the same field of endeavor, Gai discloses (e.g., identifying network data traffic flows and for applying quality of service treatments to the flows). Gai discloses wherein the admission profile is stored in a communicatively coupled remote device [see Gai, Col. 12, lines 25-50].

30. Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Gai's teachings of identifying network data traffic flows and for applying quality of service treatments to the flows with the teachings of Lakshman-Barzilai, for the purpose of obtaining traffic policies to be applied to identified traffic flows [see Gai, Col. 4, lines 26-65]. By this rationale **claim 5** is rejected.

31. Regarding **claim 6**, Lakshman-Barzilai, Engler and Gai further discloses *wherein the communicatively coupled remote device is a bandwidth broker or other generic policy server* [see Gai, Figure 2, item 216]. The same motivation that was utilized in the combination of claim 5 applies equally as well to claim 6. By this rationale **claim 6** is rejected.

32. Regarding **claim 16**, Lakshman-Barzilai, Engler and Gai discloses wherein the marking of the received data packet includes setting a logic value of a bit in a Type of Service (ToS) field of a header of the data packet [see Gai, Col. 3, lines 1-32, Col. 16, lines 21-48 and Col. 20, lines 25-31]. The same motivation that was utilized in the combination of claim 5 applies equally as well to claim 16. By this rationale **claim 16** is rejected.

33. Regarding **claim 19**, Lakshman-Barzilai, Engler and Gai discloses wherein the classifier marks a Type of Service (ToS) field of the received data packet to denote a level of service for

transmission of the data packet [see Gai, Col. 3, lines 1-32, Col. 16, lines 21-48 and Col. 20, lines 25-31]. The same motivation that was utilized in the combination of claim 5 applies equally as well to claim 19. By this rationale **claim 19** is rejected.

34. Regarding **claim 22**, Lakshman-Barzilai, Engler and Gai further discloses *wherein the admissions profile is stored in a communicatively coupled remote device* [see Gai, Col. 12, lines 25-50]. The same motivation that was utilized in the combination of claim 5 applies equally as well to claim 22. By this rationale **claim 22** is rejected.

35. Regarding **claim 23**, Lakshman-Barzilai, Engler and Gai further discloses *wherein the communicatively coupled remote device is a bandwidth broker or other generic policy server* [see Gai, Figure 2, item 216]. The same motivation that was utilized in the combination of claim 5 applies equally as well to claim 23. By this rationale **claim 23** is rejected.

Claim Rejections - 35 USC § 103

36. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

37. **Claims 12 and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshman-Barzilai and Engler as applied to claims 1, 11, 21, 24 and 25 above, and further in view of in view of what was well known to the ordinary artisan in the networking art at the time the invention was made.

38. Regarding **claims 12 and 26**, Lakshman-Barzilai and Engler further discloses *wherein the control means removes at least one of the filters based, at least in part, on time-of-day* ((The inclusion of wherein the control means removes at least one of the filters based, at least in part, on time-of-day would have been obvious to one of ordinary skill in the networking art at the time the invention was made in view of the notoriously widely known and widely implementation of control means removes at least one of the filters based, at least in part, on time-of-day. The Examiner takes Official Notice (MPEP 2144.03) that "a network administrator having the capability to remove filters base on an expiration day or time of data is well known in the networking art at the time the invention. The Applicant is entitled to traverse the official notice according to MPEP 2144.03. However, MPEP 2144.03 further states, "See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice)." Specifically, In re Boon, 169 USPQ 231, 234 states "as we held in Ahlert, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". Further 37 CFR 1.671©(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given little weight). By this rationale **claims 12 and 26** are rejected.

Claim Rejections - 35 USC § 103

39. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

40. Claims 1-14 and 16-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lakshman et al. (Lakshman), U.S. Patent No. 6,341,130 in view of Mitchem et al. (Mitchem), U.S. Patent No. 6,209,101.

41. Regarding **claim 1**, Lakshman discloses the invention substantially as claimed. Lakshman discloses *an apparatus adapted to facilitate communications between a client device and a remote device, comprising a network interface including (i) filters including at least one filter being triggered to denote when a received packet satisfies filter criteria corresponding to an admission policy* (filter rules) *related to differentiated service levels and associated with the at least one filter* [see Lakshman, Col. 1, lines 53-67, Col. 2, lines 1-34, Col. 3, lines 53-55, Col. 6, lines 15-19, Col. 9, lines 20-29] *and (ii) a classifier, communicatively coupled to the filters, to classify and mark one of the service levels associates with the received data packet in response to satisfying the filter criteria associated with the at least one filter* [see Lakshman, Col. 53-67]; *and a controller* [see Lakshman, Figure, 1, item 245]. However, Lakshman does not explicitly disclose a controller coupled to the network interface, to dynamically create and remove the filters controlling access to the different service levels based, at least in part, on an admission profile of the admission policy.

42. In the same field of endeavor, Mitchem discloses (e.g., adaptive security system having hierarchy of security servers). Mitchem discloses *dynamically create and remove the filters controlling access to the different service levels based, at least in part, on an admission profile of the admission policy* (Mitchem teaches dynamic creation and termination of security servers, whereas these security servers can be tailored to implement a security policy unique to the corresponding task *(service level),* [see Mitchem, abstract, Col. 2, lines 39-57, Col. 4, lines 6-67, Col. 5, lines 1-67].

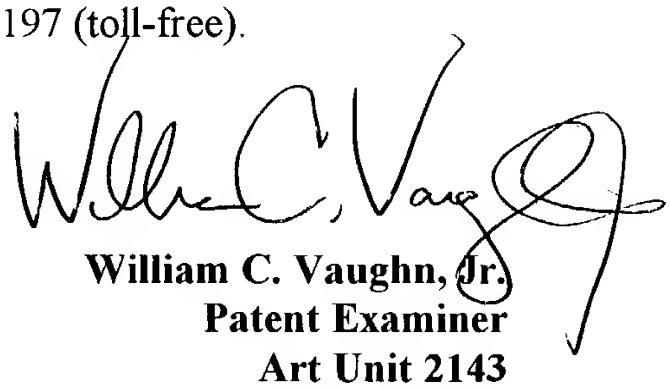
43. Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Mitchem's teachings of a adaptive security system having hierarchy of security servers with the teachings of Lakshman, for the purpose of providing each security server that can utilize a unique security policy to a corresponding tasks through the use of dynamic creation and termination of a security server [see Mitchem, Col. 4, lines 6-17, Col. 6, lines 60-67 and Col. 7, lines 1-5]. By this rationale **claim 1** is rejected.

Conclusion

44. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Vaughn, Jr. whose telephone number is (703) 306-9129. The examiner can normally be reached on 8:00-6:00, 1st and 2nd Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (703) 308-5221. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William C. Vaughn, Jr.
Patent Examiner
Art Unit 2143
06 August 2004